Office Action Summary	Application No.	Applicant(s)	
	10/691,424	KAPLAN ET AL.	
	Examiner	Art Unit	
	MICHAEL C. COLUCCI	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-7,10-17 and 25-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-7,10-17 and 25-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *05/27/2010* .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 2, 5, 11-17, and 25-29 are rejected under 35 U.S.C. 101 because:

The claimed invention is directed to non-statutory subject matter.

As per the claims, the language "computer-readable medium" do not transform the claimed subject matter into statutory subject matter. The present invention discloses:

"*it will be appreciated by those skilled in the art that other types of computer readable media which can store data that is accessible by a computer, such as magnetic cassettes, flash memory cards, digital video disks, Bernoulli cartridges, random access memories, read only memories, storage area networks, and the like may also be used in the exemplary operating environment*" (present invention spec. [0009-0010]).

A "storage area network" *typically* includes components such as hubs and routers, but can also consist purely of fiber-channel connections. Since a "storage area network" does not necessarily have to be a structural limitation such as "magnetic cassettes, flash memory cards, digital video disks, Bernoulli

cartridges, random access memories, and read only memories", it can easily be implemented as a signal across fiber-channel connections, that is a "storage area network" may simply be a carrier wave on fiber channels that provides a high speed connection *between* severs and storage propagating between one or more physical storage device. See "*Microsoft Computer Dictionary, Fifth Edition, 2002, Microsoft Press, ISBN 0-7356-1495-4*".

For instance, consider that "magnetic cassettes, flash memory cards, digital video disks, Bernoulli cartridges, random access memories, and read only memories" are all explicitly defined as statutory physical structures. For instance, RAM is semiconductor based and does not imply other propagation or carrying wave properties. If one were to examine "magnetic cassettes, flash memory cards, digital video disks, Bernoulli cartridges, random access memories, and read only memories", they would observe data storage devices in all instances. However, this may not be the case for a "storage area network" in every instance.

Being that a "storage area network, and the like" appear to be the only non-statutory embodiment, recommended amendments include one of:

1) In the specification: Removal of "storage area network, and the like" from the specification.

2) In the claim language: Inclusion of "non-transitory" *preceding* "computer-readable medium" to avoid direction to a "storage area network" embodiment.

NOTE:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14.

Allowable Subject Matter

2. Claims 1, 2, 5-7, 10-17, and 25-29 are allowed.

3. The following is an examiner's statement of reasons for allowance:

After careful review of the arguments presented in the appeal brief as well as prior arguments, Examiner believes that the prior art taken alone or in combination fails to teach:

For instance claim 1:

"the sort weight including at least two of a script, member value for the linguistic symbol, an alphabetic weight value for the linguistic symbol, a diacritic weight value for the linguistic symbol, and a case weight value for the linguistic symbol"

"identifying a highest compression type for compressions in the plurality of compression tables beginning with the symbol identified by the code point, wherein the identified highest compression type indicates the highest compression type, for the code point, in the plurality of compression tables for the plurality of languages"

"storing, in the symbol table, a tag for the code point to indicate said highest compression type for the code point, wherein the tag for the code point is stored as a portion of the sort weight of the symbol identified by the code point, and wherein the sort weight of the symbol identified by the code point comprises a case weight value, and wherein the tag for the code point is stored as part of the case weight value for the code point"

For instance claim 6:

"for each code point in the symbol table, sorting the plurality of compression tables for the plurality of languages to order the compressions in the plurality of compression tables and to identify a highest compression type for all of the compressions in the plurality of compression tables, the order of the compressions being performed by ordering compressions based on a first of the two or more symbols and then ordering the compressions based on compression types, beginning with the symbol identified by said each code point;

"storing a tag in the symbol table for each code point to indicate said highest compression type for said each code point, wherein the tag for each code point is stored as a portion of the sort weight of the symbol identified by said each code point, and wherein the sort weight of the symbol identified by said each code point comprises a case weight value, and wherein the tag for said each code point is stored as part of the case weight value for said each code point"

For instance claim 11:

"the symbol table identifying a list of code points each uniquely identifying a letter and a sort weight for the letter identified by said each code point, wherein a tag is stored as a portion of a sort weight for the first letter and identifies the highest compression type for compressions beginning with the first letter, and wherein referencing the symbol table comprises accessing the tag stored in the portion of the sort weight for the first letter to obtain the highest compression type"

1. Further, all arguments directed to claims 1, 2, 5-7, 10-17, and 25-29 were considered in light of the specification and is believed to overcome the current references used for rejection, particularly the closest:

A) Lisle et al US 4,843,389 (hereinafter Lisle)

Lisle teaching collation order and the highest collation order for a single sequence used by one or more dictionaries.

B) Katayama et al. US 6260051 B1 (hereinafter Katayama)

Katayama teaches additional collation methods for special character chains to find positions and whether numbers are present, wherein chain tables order chain groups based on the type of character group.

C) Okada US 5889481 A (hereinafter Okada)

Okada teaches compressions for various languages using separate compression units such as on a Unicode basis, wherein well known Ziv-Lempel encoding is used to obtain a high compression ratio. Further, various code ID's are given to language compression units.

D) Edberg 5,873,111 A (hereinafter Edberg)

Edberg, the most pertinent reference, teaches additional collation order routines and the differentiation between upper and lower case as well as the distinction between one letter words and two letter words, wherein various languages will effect the sorting of letter such as in Latin versus English. Additionally, Edberg teaches the conflicting of two data sets that share similar collation attributes and how to distinguish by implementing a Unicode universal language to adjust for even slight differences in languages. Therefore various codes from different sets can be understood under one Unicode set

References A through D above, even when combined do not address the issue of "*identifying a list of code points each uniquely identifying a letter and a sort weight for the letter identified by said each code point, wherein a tag is stored as a portion of a sort weight for the first letter and identifies the highest compression type for compressions beginning with the first letter, and wherein referencing the symbol table comprises accessing the tag stored in the portion of the sort weight for the first letter to obtain the highest compression type*", especially based on "*a plurality of compression tables for the plurality of languages*".

Though the references teach an address in memory, there is no combination that teaches or suggests for example "*a list of code points each uniquely identifying a letter and a sort weight for the letter identified by said each code point, wherein a tag is stored as a portion of a sort weight for the first letter and identifies the highest compression type for compressions beginning with the first letter*".

When searching for additional prior art for the limitation as recited in claims 1, 6, and 11 the most relevant topics pertained to material from the same Inventor and Assignee but did not teach or suggest the aforementioned limitation of claims 1, 6, and 11. Further, all claims dependent on claims 1, 6, and 11 are allowed because they further limit their respective parent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Colucci whose telephone number is (571)-270-1847. The examiner can normally be reached on 9:30 am - 6:00 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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